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ABSTRACT

During the 1979-1980 school year, the George Washington High School Bilingual Program served 310 ninth and tenth grade Spanish speaking students whose command of English was severely limited. The students received intensive instruction in English as a Second Language and content area instruction in Spanish. Additional program components included supportive services, staff development, parental involvement, curriculum development, and extracurricular activities. Evaluation of the program was accomplished through a comparison of outcomes to objectives. It was found that: (1) students mastered more objectives per month in English as a Second Language than were expected by program criteria; (2) students demonstrated statistically significant gains in Spanish reading achievement; (3) in the content areas, most groups of students achieved the criterion in mathematics, no groups achieved the criterion in science, only tenth grade groups reached the criterion in social studies, and all groups exceeded the expected criterion in language arts; (4) curriculum development objectives were met successfully; (5) inservice programs were held for teachers; and (6) increasing numbers of parents participated in school activities. (MK)

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ED200703

FINAL EVALUATION REPORT

ESEA Title VII

Grant Number: G007905230

Project Number: 5001-42-07653

GEORGE WASHINGTON HIGH SCHOOL

A VITALIZED TRANSITIONAL PROGRAM FOR

BILINGUAL HIGH SCHOOL STUDENTS

1979-1980

Principal: Mr. Samuel Kostman

Director: Mr. Jose Fraga

Prepared By The

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UD021382

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A VITALIZED TRANSITIONAL PROGRAM FOR BILINGUAL HIGH SCHOOL STUDENTS GEORGE WASHINGTON HIGH SCHOOL

Location:	549 Audubon Avenue, New York, New York 10040
Year of Operation:	1979-1980, First Year of Funding
Target Languages:	Spanish
Number of Participants:	310 Students, grades 9 and 10
Principal:	Samuel Kostman
Director:	Jose Fraga

I. INTRODUCTION

A. The School And Its Milieu:

George Washington High School is located in the Washington Heights/ Inwood section of Manhattan--an area known for its historical significance and its changing immigrant populations. The area is bounded on the south by 145th Street and reaches to the uppermost tip of Manhattan. The school itself stands proud, overlooking the city and the Hudson River. Its facilities and sprawling grounds, including excellent athletic fields, give it a college campus appearance.

During the past ten years there has been a dramatic increase in the influx of Spanish speaking immigrants into the community: approximately 53% of the present population comes from the Dominican Republic. The ramifications of this dramatic change in the population are far-reaching and have had an impact upon social agencies in the community. Overcrowding, fires and reduction in services have begun to deteriorate housing. Many residents are unemployed; many are on or below the poverty

level. The neighborhood has recently been declared a poverty area, eligible for urban renewal.

B. The Student Body:

Approximately 2,500 students attend George Washington High School. Over seventy percent (70%) of the population is Hispanic, and approximately sixty percent (60%) is Dominican. The majority of the Hispanic students (85%) can be designated "of limited English proficiency."

C. Context of Bilingual Program:

This is the first year of Title VII funding at George Washington High School; however, the school's commitment to serving the bilingual students in its population has been longstanding. George Washington has the highest concentration of Hispanic students of any major high school in the city. The school recognizes the scope of its mission, and as illustrated in TABLE I, has taken steps over the years to put in place a strong bilingual component.

The new bilingual program provides the structure, supportive services and capacity building features for a school-wide effort. The principal serves as an example of cooperation and support. The task of integrating and coordinating bilingual services, although a difficult one, is nonetheless achievable because of the school's history of commitment to bilingual education.

II. PROGRAM DESCRIPTION

A. General Description:

The bilingual program at George Washington serves a population of newly arrived Spanish speaking students who are severely limited in their command of English. A series of courses and supportive services are offered which include intensive English as a Second Language instruction, content area instruction in Spanish, and Spanish language

instruction. The various components of the Program are funded by Title VII, Title I, and Tax Levy (see Table II, page 7).

Approximately 310 students participated in the program. This is the first year of Title VII funding although previous commitment to bilingual education is evidenced by the existence of components of the program prior to Title VII funding (see Table I).

The present program includes the following components:

A. Instructional Component*

1. English as a Second Language Courses
2. Spanish Language Courses
3. Bilingual Social Science Courses
4. Bilingual Science Courses
5. Bilingual Mathematics Courses

B. Supportive Services

1. Guidance and Grade Advisement
2. Family Assistance
3. Extracurricular Activities
4. Resource Center

C. Staff Development

1. In-Service Training
2. Meetings and Workshops
3. College Courses

D. Parental Involvement

E. Curriculum Development

F. Extracurricular Activities

1. Awards Night
2. Panamerican Day
3. Bilingual Newsletter

*See Instructional Component section for further description of courses.

B. Target Population:

Even within the context of a majority population of Hispanic Students, many of whom have limited proficiency in English, the newly arrived student stands out. It is for this student that the bilingual program is designed. Approximately 310 students, 201 ninth graders and 109 tenth graders, entered the program in the Fall, the majority coming from the Dominican Republic. Smaller proportions come from Puerto Rico, Cuba, Central America and South America.

Eligibility

Students have a fairly wide range of literacy in Spanish but are consistently very limited in English. The Consent Degree prescribes that students falling at or below the 20% percentile on the Language Assessment Battery be served.

As part of the intake process, all newly arrived freshman students meet with the guidance counselor assigned to bilingual students. She interviews them, reviews their transcripts and backgrounds and then channels them into the program.

C. Program Structure:

The addition of Title VII funding creates a central staff of professionals serving the bilingual students at George Washington. Bilingual teachers are organized within the various departments (Social Studies, Mathematics and Science), while teachers of ESL and Spanish serve bilingual students within their respective departments. The Title VII staff, then, represents central organizing and coordinating services to staff members and students.

In addition to the coordinating and training functions provided by the Project Director, curriculum and staff development are provided by a Curriculum/Resource Coordinator, who runs a resource center for students and staff, and a highly skilled consultant who provides a variety

of staff development activities during the year.

Because of the placement of bilingual staff members in the various departments of the school, the Project Director and Resource Coordinator make intensive efforts to coordinate ESL and content area instruction for a unified bilingual approach. Because the Resource Coordinator was previously a teacher of ESL, he has rapport with the staff, and encourages coordination (see also Bilingual Staff Meetings, page 13). More detailed descriptions of program activities are presented in later sections of this report.

D. Staffing and Funding Patterns:

During the 1979-1980 school year, the Title VII staff consisted of the following:

1 Project Director

1 Curriculum/Research Coordinator

1 Secretary

2 Paraprofessionals

2 Family Assistants

Other personnel working with bilingual students are teachers in the ESL and Spanish Departments as well as bilingual teachers working within the Science, Mathematics and Social Studies Departments (see the previous section). Table II, which follows, presents the program personnel by funding source.

E. Instructional Component:

The instructional component of the bilingual program includes courses in English as a Second Language, the Spanish language, and content area courses (taught in Spanish) in Mathematics, Social Studies and Science.

TABLE II

PERSONNEL SERVING BILINGUAL STUDENTS, BY FUNDING SOURCE

Number of Positions	Title	Area	Funding Source
1	Project Director	Administration	Title VII
1	Curriculum/ Resource Coordinator	Materials Development, Supervision of Individualized Instruction	Title VII
13	Teachers	ESL	Title I (4) Tax Levy (7) PSEN (2)
5	Teachers	Math (1 full-time; 4 part-time)	Tax Levy
2	Teachers	Social Studies	Tax Levy
1	Teacher	Science	Tax Levy
5	Teachers	Spanish	Tax Levy
1	Teacher	Accounting	Tax Levy
2	Guidance Counselors/ Grade Advisors	Guidance	Tax Levy
4	Paraprofessionals	Social Studies Math, Science	2 Title I and 2 Tax Levy
2	Family Workers	Guidance	Title VII
1	Secretary	Clerical	Title VII

English as a Second Language. Ninth and tenth grade students at George Washington are offered a 2-year sequence of ESL courses, plus an ESL Reading course which offers intensive remedial assistance in reading for those who need it. Most students take two periods of ESL daily (323, or all program students, are taking ESL), while 145 of these are taking an additional ESL Reading class. Thus, students may receive 10 or 15 periods of ESL instruction per week.

Students who complete the 2-year ESL sequence will be placed in one of three transitional English classes of increasing difficulty: ESL 3L, 6L, and Oral Communications. Very few program students were enrolled in these classes, given that most are recent immigrants.

Table III, Courses Offered to Bilingual Students, shows classes which are available, while Table IV indicates the numbers of students enrolled in each curricular area.

Spanish Language Arts. The sequence in Spanish consists of eight levels, ranging from Native Language Arts (NLA) through courses in Spanish and Latin American literature. Also included in the Spanish curriculum are courses in Spanish Drama, Business Practices and Spanish for Health Careers. As needed, students may take 1 or 2 periods of NLA daily.

Students are programmed for courses by the Guidance Counselor and Grade Advisor after careful consideration of their previous records. (Table V presents sample program of two program students).

The philosophy held by the bilingual staff is to move the student gradually toward increasing exposure to instruction in English.

Students may take mainstream courses that are appropriate for their academic needs and their level of English proficiency. All students take physical education with the rest of the school body. Complete mainstreaming will be done in accordance with guidelines developed by the Office of Bilingual Education. Given that most program students are

TABLE III

COURSES OFFERED BY BILINGUAL PROGRAM

Spanish Language	ESL	BL Mathematics	BL Science	BL Social Studies
Native Lang. Arts	ESL 1	Algebra A	General Science	Introduction to New York
Spanish Literature	ESL 1B	Algebra B	Introduction to Science II	
Latin Amer. Literature	ESL 2	Algebra C	Biology I and II	Latin American Studies
Spanish Drama	ESL 2B	Fundamentals of Math I and II		Western Civilization I and II
Business Practices	ESL 0 Reading	Intermediate Algebra I & II		
Spanish for Health Careers		Business Math I and II		

TABLE IV

STUDENT ENROLLMENT IN BILINGUAL PROGRAM COURSES

Subject Area	# of Students
ESL	323
Reading	145
Spanish	262
Mathematics	258
Science	22
Social Studies	136

TABLE V

GEORGE WASHINGTON HIGH SCHOOL BILINGUAL PROGRAM

SAMPLE STUDENT PROGRAMS

STUDENT 1

PERIOD	SUBJECT	DAYS
01		MTWRF
02	Physical Ed.	MTWRF
03	Spanish U3	MTWRF
04	Lunch	MTWRF
05	ESL 1	MTWRF
06	ESL 1B	MTWRF
07	EL Alg. BBL	MTWRF
08	ESL Reading 2	MTWRF
09		MTWRF
10		MTWRF

STUDENT 2

01	ESL 2	MTWRF
02	ESL 2B	MTWRF
03	Intro NYBL	MTWRF
04	ESL Reading 2	MTWRF
05	EL Alg. ABL	MTWRF
06	Lunch	MTWRF
07	Spanish U3	MTWRF
08	Physical Ed.	MTWRF
09		MTWRF
10		MTWRF

new immigrants, none are yet taking mainstream courses.

F. Supportive Services:

Family Assistants. Effective guidance services at George Washington are an important part of the program's overall functioning. This component is strong and is largely due to the work of two family assistants. The family assistants are charged with the responsibility of providing the support necessary for students to attend classes and to be sufficiently motivated and free from obstacles to their learning. The family assistants also utilize an active and organized approach to counseling. Students with poor attendance records are followed up through letters, phone calls and home visits.

Additionally, the family assistants keep records on all students in the program. When problems arise such as repeated absences, failing grades or disruptive behavior, contact is made immediately. This contact is initiated by the family worker, who speaks first with the student, and if necessary, with the parent. Staff members realize that a special sensitivity and cultural understanding is required in dealing with parents who are not used to interaction with school systems. Thus, parents are urged to attend Open House and other program activities.

An indication of the program's effectiveness in parental involvement (sparked by the work of the family assistants) is evidenced by the number of parents of program students who attended the last Open House: Eleven percent (11%) attended compared to five percent (5%) of the parents of the general student body. It is important to note that one family assistant did not begin working until March 1980 and statistics were kept only from that point. Table VI presents the services performed by the family assistants.

TABLE VI

SERVICES PERFORMED BY FAMILY ASSISTANTS

	Calls	Home Visits	Letters	Individual Counseling/ Active Cases
Number of Contacts From March to June*	800	30	2,000	40

Guidance Counselors. Working in conjunction with the family assistants are two regular school guidance counselors who are assigned to serve bilingual program students. The counselors work with these students in addition to their regular case load of mainstream students. Each counselor serves approximately 350 students (program and mainstream) and is involved in the intake interview process and course advisement.

G. Staff Development:

The bilingual program at George Washington High School has carried out a number of staff development activities during the 1979-80 year, offering a range of support and learning opportunities both to bilingual and non-bilingual personnel. These include the ongoing services of a highly experienced bilingual consultant, who has conducted an intensive in-service course and meets with staff individually; numerous meetings, college courses, and the services of a resource/curriculum specialist who offers individual assistance to teachers and runs a resource center for students and staff (see section I, below).

In-service Training Course for George Washington High School Staff. A course in Spanish culture and language development, taught by the Bilingual Program Consultant, was conducted on a regular basis throughout the school year. The purpose of the course was two-fold: to increase cultural awareness and sensitivity and to develop communicative oral skills in Spanish. Fourteen bilingual teachers and other staff members were introduced to the cultural distinctions of the population which

*Work performed during a four month period.

represents the majority of the student body. Through the course, staff members learned what life was like for many of the students before coming to this country and to George Washingcon. They experienced personally the frustrations of not being able to express oneself freely in the language spoken by the dominant group. The course was divided into groups--beginners and intermediate--based on Spanish proficiency. Both groups met three hours per week.

According to the Bilingual Program Consultant, the course brought about a significant change in staff attitudes toward bilingual education. Individuals who formerly had not accepted the premise of bilingual education "seem now to accept bilingual education as a viable and meaningful educational strategy for the linguistically different student."

Other Consultant Activities. The Consultant, an experienced professional in the field of bilingual education has met with the Principal, Assistant Principals and central school staff, and has offered technical assistance in proposal development. In addition, he offers support to teachers on an individual basis in curriculum use and development.

Bilingual Staff Meetings. The staff meets formally on a regular basis to deal with administrative and curricular issues, and any other questions which may arise. Given that the bilingual personnel are dispersed through various departments, the Project Director has made an effort to facilitate and encourage the participation of staff from all departments serving bilingual students--ESL, Spanish (Foreign Languages), Social Studies, Science, and Mathematics. At the first and last meetings all bilingual staff attended. While scheduling conflicts prevented all teachers from attending the regular meetings, each department sent at least one representative. As part of their effort to maintain coordination, copies of the minutes of the meetings are sent to all the departments concerned. The Principal supports the

unified approach to bilingual education and attended the final meeting in June along with the teachers of the content areas and ESL.

Formal staff meetings were held on the following dates:

1. October 10, 1979
2. October 15, 1979
3. October 29, 1979
4. January 7, 1980
5. January 29, 1980
6. February 4, 1980
7. February 23, 1980
8. April 29, 1980
9. March 11, 1980
10. June 9, 1980

Additional informal meetings took place throughout the year. These meetings were necessary for the planning and implementation of the program.

College Courses. The following courses were taken by the bilingual and ESL staff during the spring and summer semesters.

CHART A

College Courses Taken, 1979-1980

Staff Member	Course	Number of Credits	College/ University
Bilingual Social Studies Instructor	1. Workshops in Bilingual Education 2. Vernacular Language of Puerto Rico	6	City College, CUNY
Bilingual Social Studies Instructor	1. Puerto Rican & Other Hispanic-American History and Culture 2. Language and Educational Evaluation in a Bilingual Program	6	Fordham University
Accounting/ESL Instructor	1. American Literature of the Twentieth Century 2. Linguistics and Literature--Stylistics	6	New York University
ESL Instructor	1. Problems in Contemporary English	3	Columbia University
Family Assistant	1. Sociology and Criminology 2. Juvenile Delinquency	6	City College, CUNY

H. Curriculum Development:

During one month of summer 1979 time was devoted to writing curriculum in mathematics. During the summer one of the bilingual mathematics teachers reviewed curricula which had been developed for Spanish speaking students and made recommendations for their use. In addition, she developed exercises and appropriate tests for Algebra students. Exercises were written to help prepare students for the Regents Competency Test in Mathematics in the areas of graphs, verbal problems, statistics and probability. Finally, a test was developed for the fundamental math course.

In the area of social studies a variety of curriculum units and materials were developed to be used in three bilingual courses: Introduction to New York City, Western Civilization and Latin American Culture. These materials include the following:

1. material which carefully introduces English into the course content was developed so that by the end of the term English would comprise 25% of the Latin American Class, 50% of Western Civilization;
2. tables of specifications, formative tests, and summative tests were developed for all skill areas;
3. lesson plans, homework and quizzes;
4. five (5) units were developed for the Latin American course, which include vocabulary terms and questions;
5. an analysis of all books used in social studies courses was carried out, including readability level and suggested uses.

I. The Resource Center:

The bilingual program's Resource Center at George Washington High School is true to its name. The Center provides students with the academic supportive services and resources they need to succeed in their classes. The library contains books in Spanish and English which students may borrow. The selection of materials is quite varied, ranging from numerous Spanish textbooks to newspapers and magazines in Spanish and English. The Center is also a place where students can receive one-to-one tutoring. It is usually filled with students reading, being tutored or doing homework. The atmosphere is relaxed but serious.

The Resource Coordinator has had to assume many roles. He is tutor, counselor, librarian and curriculum specialist. Currently, as has been indicated, the Resource Coordinator is working with bilingual, ESL and Spanish language instructors to coordinate the various skills and vocabulary which bilingual students are learning in their classes. This will enable the Center to provide cohesive reinforcement to the instructional process.

The mission of the Center and the zeal of its Coordinator have inspired cooperation and assistance from others. For example, two former teachers from the Dominican Republic have volunteered their services and, most importantly, the instructors from all areas relating to the bilingual student appear eager to contribute to the coordination and reinforcement effort. The capacity of the Center would be greatly enhanced by additional full-time staff. The Center has the profound potential for becoming a vehicle for the kind of dialogue, research, and innovation necessary to improve bilingual education.

J. Parental Involvement:

The bilingual program's commitment to involving parents in their children's learning experience has been strong. As the project began, the staff recognized that special efforts would have to be made to overcome a traditional lack of school/parental interaction, particularly among recent Hispanic arrivals, and to improve generally poor parent/teacher relations formed in the past. The program staff has responded to this challenge head on, and has set an example for the rest of the school. An indication of this is the previously noted fact that at a general parents' meeting, 11% of parents from the bilingual program attended compared to 5% of the general population. Since parental attendance has increased dramatically throughout the school year, this proportion will probably rise as the program grows and matures.

The Family Assistants work closely with parents, keeping them aware of all aspects of their children's progress in school, and urging them to take an active part. As a result, many parents participate in the Adult Education Program on Saturdays. The Bilingual Secretary also works in the Saturday Program. One of the Family Assistants is also president of the Bilingual Parents' Association which held several meetings throughout the school year (see Appendix.)

Special events are also held to promote parental and student involvement. On Saturday, February 23, 1980 the bilingual program held an Awards Night. Certificates were presented to students who earned averages of 85% or over. Parents and students participated enthusiastically.

On May 6, 1980, staff, students and parents celebrated Pan American Day. Everybody who attended the "fiesta" enjoyed the various activities.

III. EVALUATION PROCEDURES, INSTRUMENTS AND FINDINGS

The following section presents the assessment instruments and procedures, and the results of the testing.

Students were assessed in English Language development, growth in their mastery of their native language, mathematics, social studies and science. The following are the areas assessed and the instruments used:

English as a Second Language	--	Criterion Referenced English Syntax Test (CREST), Levels I,II,III
Reading in Spanish	--	CIA Prueba de Lectura, Level III
Mathematics Performance	--	Teacher-made tests
Science Performance	--	Teacher-made tests
Social Studies Performance	--	Teacher-made tests
Native Language Arts Performance	--	Teacher-made tests
Attendance	--	School and Program Records

The following analyses were performed:

A. On pre/post standardized tests of Native Language Reading Achievement, statistical and educational significance are reported:

1. Statistical Significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores is larger than would be expected by chance variation alone; i.e. is statistically significant. This analysis does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made because of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.
2. Educational Significance was determined for each grade level by calculating an "effect size" based on observed summary

statistics using the procedure recommended by Cohen.[1]

An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful. Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the following effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = small ES

a difference of 1/2 = .50 = medium ES

a difference of 4/5 = .80 = large ES

B. On the Criterion Referenced English Syntax Test (CREST) information is provided on the number of objectives attempted and mastered, the percentage of objectives mastered versus those attempted, and the number of objectives mastered per month of treatment. Information is also provided on student performance on the various test levels.

C. The results of the criterion referenced test in mathematics, social studies, science and native language arts are reported in terms of the number and percent of student achieving the criterion levels set for the participants (70% passing).

D. Information is provided on the attendance rate of student participating in the bilingual program, compared with that of the total school population.

The following pages present student achievement in tabular form.

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[1] Jacob Cohen. Statistical Power Analysis for the Behavioral Sciences (Revised Edition). New York: Academic Press, 1977 Chapter 2.

TABLE VII

English as a Second Language

(Title VII - Total Year)

Results of the Criterion Referenced English Syntax Test (CREST) Reporting the Number of Objectives Mastered, Percent Mastered, and Objectives Mastered Per Month.

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Months of Treatment	Objectives Mastered Per Month
9	42	13.6	11.6	85%	8.8	1.3
10	125	34.3	20.2	59%	8.9	2.3
Totals	167	31.5	18.0	66%	8.9	2.0

Table VII reports total year results for Title VII students tested with the CREST regardless of test level. Grade 9 students mastered an average of 11.6 objectives of the 13.6 objectives they attempted. Tenth grade students apparently functioned at a high level. More than 34 objectives were attempted by the typical student of which 59% or 20.2 objectives were mastered. Grade 9 students mastered 1.3 objectives per month, while 10th grades mastered 2.3 objectives per month. The program objective of mastering one (1) objective per four weeks (month) of treatment was achieved and substantially surpassed.

TABLE VIII

English as a Second Language

(Title VII-Total Year)

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

		LEVEL I			LEVEL II			LEVEL III		
Grade	# of Students	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	42	508	261	51%	443	214	48%	20	13	65%
10	125	1281	683	53%	3010	1842	61%	-	-	-
Totals	167	1789	944	53%	3453	2056	60%	20	13	65%

Table VIII reports total year results for Title VII students by grade and test level. Grade 9 students functioned approximately equally on levels I and II, and grade 10 students functioned primarily on the intermediate test levels (II). Ninth grade students were equally successful approximately in mastery rates for levels I and II, and demonstrated a high proficiency for Level III objectives. Tenth graders showed a higher mastery rate for Level II objectives compared to objectives mastered at Level I.

TABLE IX

NATIVE LANGUAGE READING ACHIEVEMENT

Spanish Speaking Students

Significance of Mean Total Raw Score Differences Between Initial and Final Test Scores in Native Language Achievement of Students with Full Instructional Treatment on the CIA Prueba de Lectura, Level III.

		Pre-Test		Post-Test						
Grade	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Corr. Pre-Post	t	p	ES
9	107	35.9	20.6	40.7	14.5	4.8	.59	2.94	.002	.28
10	83	46.6	19.2	46.4	15.6	-.2	.63	-0.09	NS	

Table IX presents achievement data for students on the CIA Prueba de Lectura. Students in grade 9 showed a raw score gain of 4.8 raw score points while 10th grade students showed a decline of .2 raw score points. The gain for students in grade 9 was statistically significant at the .002 significance level. Students in grade 10 did not make gains that reached statistical significance at the .05 probability level. The gains for students in grade 9, when expressed in standard deviation units, were judged to be of small educational significance.

The pre/post-test correlations for students in grades 9 and 10 were .59 and .63, respectively. These correlations are smaller than expected in test-retest situations with the same or parallel forms of a standardized testing instrument, and suggests that the instrument may not be sufficiently reliable to make adequate differentiations among students from this population, or at least this sample. The size of the standard deviations also suggests that these may be very heterogeneous groups, for whose members the test may not be equally valid.

TABLE X

MATHEMATICS PERFORMANCE

Number and Percent of Students Passing Teacher- Made Examinations in Mathematics

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	143	103	72%	145	87	60%
10	106	86	81%	101	69	68%

In the Fall term, the percentage of students passing teacher-made examinations in Mathematics was 72% in grade 9 and 81% in grade 10. In Spring, the percent mastering the curriculum was 60% in grade 9 and 68% in grade 10. Overall, the stated evaluation objective for Mathematics was met and surpassed in both grades in Fall. Spring testing revealed that students failed to reach the criterion level of a 70% pass rate.

TABLE XI

SCIENCE PERFORMANCE

Number and Percent of Students Passing Teacher- Made Examinations in Science

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	4	1	25%	2	0	0%
10	30	18	60%	21	13	62%

In the Fall term, the percentage of students passing teacher-made examinations in Science was 25% in grade 9 and 60% in grade 10. In Spring, the percentage mastering the curriculum was 0% in grade 9 and 62% in grade 10.

Students in all grades failed to reach the criterion level each semester. The results for ninth grade students are based on very small sample sizes. The reliability of the percent passing statistics is, therefore, low.

Relatively few 9th graders are enrolled in science classes at George Washington. According to the Coordinator, very few students have the linguistic or cognitive skills needed to be successful in General Science. For most, then, science classes are taken in later years. In addition, 9th graders may take as many as 3 ESL and 2 NLA classes daily, thereby leaving only 2 or 3 instructional periods remaining.

With mandated music, art, and physical education classes, most 9th graders' programs do not allow for many additional content area classes.

TABLE XII

SOCIAL STUDIES PERFORMANCE

Number and Percent of Students Passing Teacher- Made Examinations in Social Studies

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	72	31	43%	63	42	67%
10	63	41	65%	69	56	81%

In the Fall term, the percentage of students passing teacher-made examinations in Social Studies was 43% in grade 9 and 65% in grade 10. In Spring, the percent mastering the curriculum was 67% in grade 9 and 81% in grade 10. Tenth grade students in Spring only mastered the stated evaluation objective. Ninth grade students in Spring and tenth graders in Fall approached the criterion (70%).

TABLE XIII

NATIVE LANGUAGE ARTS PERFORMANCE

Number and Percent of Students Passing Teacher- Made Examinations in Native Language Arts

	FALL 1979			SPRING 1980		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	139	115	83%	142	114	80%
10	105	98	93%	106	90	85%

In the Fall term, the percentage of students passing teacher-made examinations in Native Language Arts was 83% in grade 9 and 93% in grade 10. In Spring, the percent mastering the curriculum was 80% in grade 9 and 85% in grade 10. Overall, the stated evaluation objective for Native Language Arts was met and substantially surpassed in all grades at each testing period.

TABLE XIV

ATTENDANCE

Significance of the Difference Between Attendance Percentages of Program Students and the Attendance Percentage of the School

Average School-Wide Attendance Perentage: 73%

Grade	N	Mean Percentage	Standard Deviation	Percentage Difference	t	p
9	161	88.9	11.1	16.9%	19.3	.001
10	114	91.5	10.8	18.5%	18.3	.001

Students in grade 9 attended at a rate of about 90%, and 10th grade students attended approximately 92% of the total year. When compared to the total school-wide average attendance rate of 73%, students attended at significantly higher rates at extremely high levels of significance.

IV. CONCLUSION AND RECOMMENDATIONS

The bilingual program at George Washington High School has experienced a highly successful first year. It is well integrated into the total school curriculum and environment. The hard-working, dedicated staff have built a dynamic program which continues to adapt itself to student needs and to explore the most effective educationally sound methods of bilingual education. In one year's time, the program has demonstrated strengths in many areas, as will be seen below. The following sections present a summary of findings, conclusions and recommendations.

A. Summary of Results:

The following section presents the evaluation objectives and the results of the findings for each.

1. As a result of participation in the program, students will master an average of one objective per four weeks of treatment as measured by the CREST.

   Results - Program students as a whole mastered 2.0 objectives per month, exceeding the program-set criterion.

2. As a result of participating in the program, students will demonstrate a significant increase in Spanish reading achievement, as measured by the CIA Prueba de Lectura.

   Results - Ninth grade students achieved gains which were statistically significant and of moderate educational significance. Tenth graders however, did not achieve significant gains in this area.

   It should be noted that the low pre-post correlations for both grades suggest that this test may not be reliable for these

students. The size of the standard deviations suggest that these are very heterogeneous groups and the test used may not be equally valid for all the individuals tested (see Recommendations).

3. As a result of participation in content area classes, 70% of the students will achieve a passing grade in the content areas of mathematics, science, social studies and Spanish literature.

   Results - In mathematics, two groups out of the four reported (9th and 10th graders, spring and fall) achieved the criterion, while a third group nearly achieved a 70% passing rate.

   Fairly small numbers of students were reported as taking science classes. Of the groups reported, none achieved a 70% passing rate (although 10th grade students achieved rates of 60% or over.)

   More students were reported as taking social studies than science classes. Of the four groups of students reported, only 10th graders in the spring term exceeded the 70% passing rate. Spring term 9th graders did achieve rates of 65% or over, however (see Recommendations).

   In native language arts, all four groups of students achieved rates of passing which exceeded 80%, well above the criterion level.

4. A bilingual resource center will be established which will collect and develop bilingual materials in the areas of math, science, social studies and Spanish literature.

   Results - A successful resource center was established; curriculum has been developed in all areas. The Curriculum Specialist/Resource Coordinator has developed coordination of courses and a system for

reinforcing curricular content. Curriculum is constantly updated and improved, and efforts toward coordination of all academic skills are well underway. In addition to being a vital resource for staff and students, the Center is also a place where students can feel comfortable while receiving individual tutoring, studying or reading. The Center's Coordinator has been instrumental in fostering dialogue among bilingual staff members in all areas affecting the student.

5. Program teachers will improve their skills in serving the bilingual students through participation in in-service workshops and college courses.

   Results - An intensive in-service course was offered by an experienced consultant for all staff (including non-bilingual staff members) three hours per week. A total of 32 college credits were earned by bilingual teachers.

6. Parents of students participating in the program will participate in at least one of the following: advisory council or committee; general meetings; school open house; visits to home by Family Assistants.

   Results - Seven Parents' Meetings were held with an average attendance of 39. Program parents also participated at Awards Night and Panamerican Day. Numerous phone calls were made, letters were sent and approximately 70 home visits were made to parents. Increasing numbers of parents participate in school activities, and many Hispanic parents take part in the Saturday Adult Education Program.

7. Although the program's evaluation design included no objective in the area of attendance, attendance rates of program students surpassed the school-wide rate at extremely high levels of significance.

B. Recommendations:

Based upon its record over the past year, continued excellence and innovations can be expected from George Washington's bilingual program as it develops in the future.

The following recommendations are offered to further enhance the program's functioning:

1. Efforts toward coordinating and reinforcing curriculum should continue to be emphasized. Frequent meetings between staff in the various departments will help to facilitate this necessary effort. Goals and priorities must be set by the Principal in consultation with Chairpersons, the Project Director, Resource Coordinator and consultant.
2. The following modifications in the use of existing staff members are recommended:
   a. Two assistants would be most helpful in the Resource Center, aiding the Coordinator in creating a multi-purpose environment for learning and reinforcement. Given the difficulty of adding new staff, it is recommended that the existing paraprofessionals be deployed with more flexibility, with some of their time to be spent in the Resource Center (or in updating Title VII record-keeping), and the rest spent in classrooms.
   b. Several staff members have expressed a need for a dean of bilingual education--for the discipline problems of bilingual students to be handled in a systematic way. It is recommended that a staff member assume this responsibility, if at all possible, and that this individual work closely with the Bilingual Program staff (if not actually a staff member).

3. Orientation groups are recommended for program students which could offer social support and would also allow students to discuss areas of common concern. Such an atmosphere would allow them to relax and expand themselves socially.
4. Additional space is needed to allow for the privacy required when students or parents are counseled by family workers, or when quiet work or confidential discussions occur. The Bilingual Office is practically always brimming with activities, and students feel free to drop in at anytime. This is good; hopefully, the staff will always remain accessible and understanding. However, a conference room, in addition to the present space, could be utilized when confidentiality deemed it necessary, without the staff becoming remote.
5. Vocational and college counseling should commence from entry level and accelerate as students move toward graduation.
6. Tape recorders would be beneficial in the Resource Center, so students could practice speaking and listening to English.
7. Regular meetings between ESL, Spanish and bilingual teachers and the Resource Center Coordinator should be established in order to work towards a united reinforcement effort. Special attention should be given to interaction between the ESL and bilingual programs.
8. The in-service training workshops offered by the bilingual program consultant should be repeated next year for new staff and those who did not participate, or who would like to continue their studies. This type of orientation would promote the kind of understanding necessary for positive attitudes and interaction between teachers and bilingual students. Perhaps the workshop could be offered for credit.
9. The performance of the 10th grade students on the Prueba de Lectura raises several questions about possible irregularities in the testing

process. It is recommended that the relationship between test level and student achievement be examined. If student abilities are very heterogeneous, then the test level may be inappropriately used for the whole group of students tested. If the range of abilities is large, it is recommended that the students be divided for testing purposes according to instructional level. It is also suggested that the relationship between test content and course content be examined to determine the validity of the test for these students.

10. The criterion level set for performance in the content areas (a 70% passing rate) would seem to be so high as to be unreasonable for city high school students. It is recommended that the criterion level be set at 60% passing, a rate which is a demanding but realistic one.

11. Importantly, it is recommended that the program continue to seek funding, and new emphasis be given to two interrelated groups of students. The population at George Washington High School is a very mobile one, and numbers of Hispanic students will leave the school without a diploma. Others will graduate, but will not go to college. Because of the academic orientation of the school as a whole, these students may need additional assistance. Towards aiding the potential drop-outs and students going on to the world of work, it is recommended that the program seek to provide them with basic academic and job-oriented skills. Counseling (see Recommendation 5), tutoring and family support, in addition to career-preparation classes, may aid in drop-out prevention. Early recognition of potential drop-outs, timely support, and relevant courses may provide these students with experiences which will enable them to cope more effectively with the world beyond high school.

V. APPENDICES

APPENDIX A

DATA SHEET FOR

STUDENT FOLDER

George Washington High School — Bilingual Program – Admission Form — Date of Admission: _____

NAME: _____ Place of Birth: _____ Date of Birth: _____

Length of time in U.S. _____ yr(s) — Amount of schooling Completed to date: _____

ESL class Placement: _____ — NATIVE Language: _____ — Telephone # _____

CREST TEST				PRUEBA DE LECTURA				LAB TEST				OTHER TEST			
DATE TAKEN	Place	Total Score	% tile	DT	P	TS	% tile	DT	P	TS	% tile	DT	P	TS	%tile

APPENDIX B

BILINGUAL PARENTS ASSOCIATION MEETING

SCHEDULE AND ANNOUNCEMENT

GEORGE WASHINGTON HIGH SCHOOL
Samuel Kostman, Principal
BILINGUAL PROGRAM
Jose Fraga, Director

MEETINGS HELD BY THE BILINGUAL PARENTS ASSOCIATION

MEETINGS	ATTENDANCE
November 26, 1979	35
January 7, 1980 (Bilingual Parents)	14
February 23, 1980 (General)	49
March 23, 1980 (Bilingual Parents)	28
April 20, 1980 (General)	35
May 18, 1980 (Bilingual)	50
June 6, 1980 (Bilingual)	44

GEORGE WASHINGTON HIGH SCHOOL
Samuel Kostman, Principal
PROGRAMA BILINGUE
Jose Fraga, Director

REUNION DE PADRES

SABADO, 23 DE FEBRERO

DE

12:00 del Mediodía a 3:00 P.M.

La próxima reunión general de la Asociación de Padres del Programa Bilingüe tendrá lugar el sábado , día 23 de febrero del 1980 - de 12:00 del mediodía a las 3:00 de la tarde en el salón 241 de la Escuela Secundaria George Washington. En esta reunión además se rendirá homenaje a los estudiantes del Programa Bilingüe que han obtenido un promedio de 85 ó más y cuyos nombres aparecen en la página #6 de nuestra publicación. ENHORABUENA!!!!

OFICINA BILINGUE

SALON 469

La Oficina Bilingüe esta localizada en el Salón No. 469. Para cualquier problema relacionado con su hija/hijo puede dirigirse a esta oficina llamando al teléfono (568-6230) en las horas escolares de 8 a 3 de la tarde.

Si tiene interés de dirigirse a las consejeras Bilingües puede hacerlo llamando al teléfono 927-1845.

NOTA: [redacted] FAVOR DE HACER USO DE LOS SERVICIOS QUE LE OFRECE EL PROGRAMA BILINGUE.

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APPENDIX C

FORM LETTER TO PARENTS

GEORGE WASHINGTON HIGH SCHOOL
Samuel Kostman, Principal
BILINGUAL PROGRAM
Jose Fraga, Director

Sonya Hartog
Consejera Bilingue

Judith C. Light
Sub-Directora de
Orientacion

Fecha:_____

Estimado/a_____;

El dia _____, yo le hice una visita para hablar con usted acerca de su hijo/a _____.

Es muy importante usted se comunique conmigo lo mas pronto posible. Llame a este telefono 568-6230. Si yo no estoy disponible, haga el favor de dejar un mensaje con su numero de telefono y cuando me puedo comunicar con usted.

Muy atentamente,

_____
Asistente de Familia del Programa Bilingue

APPENDIX D

HOME VISIT REPORT FORM

GEORGE WASHINGTON HIGH SCHOOL
Samuel Kootman, Principal
BILINGUAL PROGRAM
Jose Fraga, Director

ASISTENTES DE FAMILIA:
Minerva Santiago
Rafael A. Alfarez

Ms. J.C. Light, Sub-Directora de ORIENTACIÓN
CONSEJERAS BILINGÜES:
Mrs. S. Hartog
Mrs. A. Soneira

REPORT ON HOME VISIT

DATE OF VISIT: _____

_____ _____
NAME OF STUDENT FAMILY ASSISTANT (s)

REASON FOR VISIT: _____

_____

BRIEF SUMMARY OF EXPERIENCE AND REACTIONS:
(Relate interview questions to purpose of visit as determined by conference with Counselor).

PLANNED FOLLOW-UP:

Date of Conference w/Guidance Counselor: _____